

REQUEST FOR COUNCIL ACTION

MEETING
08-18-03

325-

AGENDA SECTION: PUBLIC HEARING	ORIGINATING DEPT: PLANNING	ITEM NO. E-13
ITEM DESCRIPTION: Final Plat #03-14 to be known as Valley Side Estates Third by Freedom Development & Consulting LLC. The Applicant is proposing to subdivide approximately 33.41 acres of land into 42 lots for single family development and 4 Outlots. The Plat also proposes to dedicate new public roadways. The property is located east of Valley Estate Second Subdivision and south of Highway 14 East.		PREPARED BY: Brent Svenby, Planner

August 13, 2003

Staff Recommendation:

Staff would recommend approval subject to the following conditions:

1. ***Prior to submitting the Final Plat for recording:***
 - a. ***The roadway shall be labeled as Red Hawk Drive SE east of the intersection of Red Hawk Drive SE and Falcon Road SE and also west of the intersection of Red Hawk Drive SE and Falcon Road SE.***
 - b. ***Illustrate Starling N LN SE and Starling Lane SE.***
2. ***No Parking shall be allowed and "No Parking" signs shall be posted along one side of Starling Lane SE.***
3. ***A GIS Impact Fee and E911 Addressing Fee shall be assessed and must be paid prior to recording the final plat, per the August 7, 2003 memorandum from Rochester-Olmsted Planning Department – GIS Division.***
4. ***Parkland dedication shall be met via cash in lieu of land in the amount of \$15,300 with payment due prior to the recordation of the final plat documents.***
5. ***The applicant shall execute a Maintenance Agreement, prior to recording the Final Plat, for islands located within the cul-de-sacs. In addition, a Landscape Plan must be submitted by the Owner with the City-Owner Construction Plans, and approved by the City Engineer.***
6. ***Prior to recording the Final Plat, the applicant shall execute an Ownership & Maintenance Agreement, and dedicate applicable access and drainage easements for the proposed private stormwater detention facility shown on Outlot 'A'.***

Council Action Needed:

1. ***If the Council wishes to proceed, it should instruct the City Attorney to prepare a resolution with findings supporting their decision.***

Attachment:

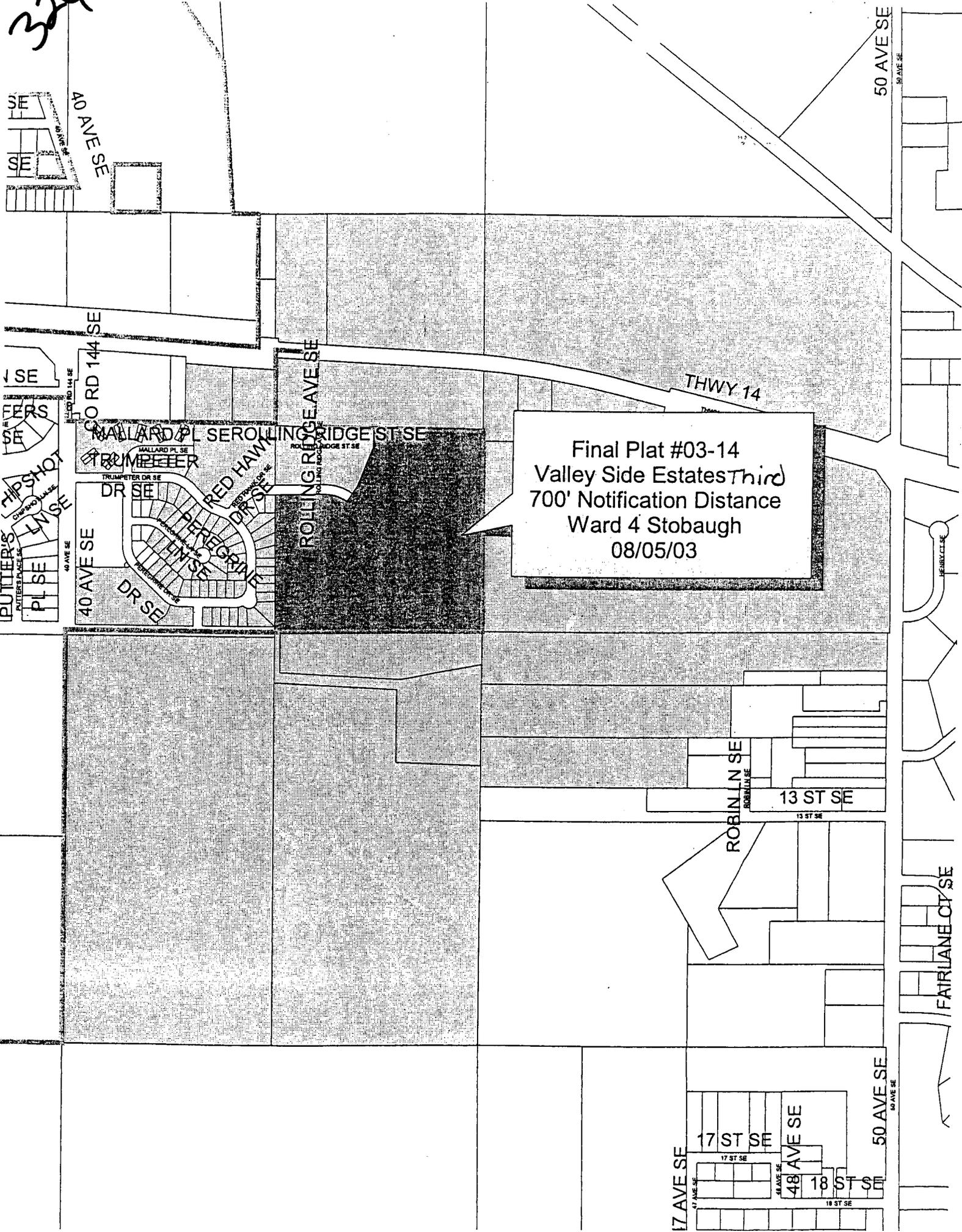
1. Staff Report dated August 13, 2003.

Distribution:

1. City Attorney
2. Planning Department File
3. Applicant: This item will be considered sometime after 7:00 p.m. on Monday, August 18, 2003, in the Council/Board Chambers at the Government Center, 151 4th Street SE.
4. Surveying & Engineering Professionals Inc.

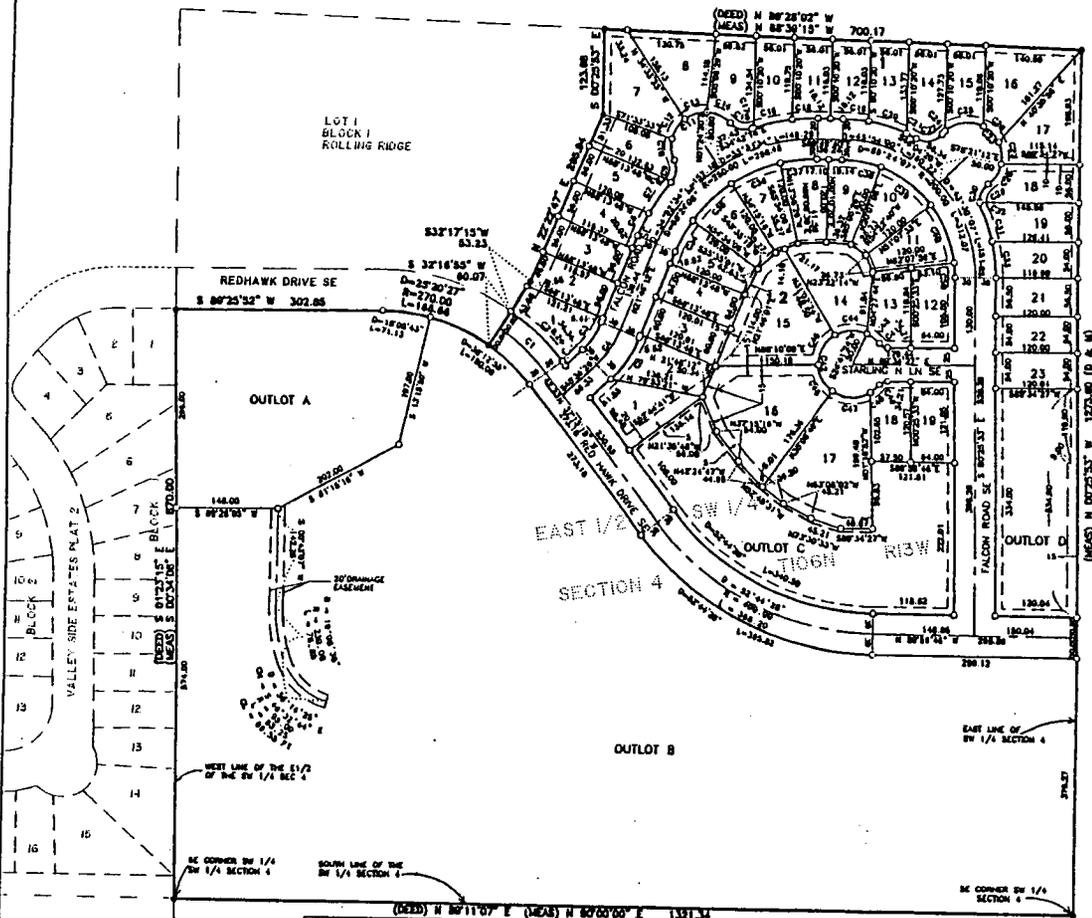
COUNCIL ACTION: Motion by: _____ Second by: _____ to:

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ADDITION TO VALLEY SIDE ESTATES 3rd

- LOT 1
- LOT 2
- LOT 3
- LOT 4
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- LOT 6
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- LOT 94
- LOT 95
- LOT 96
- LOT 97
- LOT 98
- LOT 99
- LOT 100



CURVE TABLE

STATION	BEARING	ANGLE	CHORD	ARC LENGTH	STATION	BEARING	ANGLE	CHORD	ARC LENGTH	STATION	BEARING	ANGLE	CHORD	ARC LENGTH	STATION	BEARING	ANGLE	CHORD	ARC LENGTH
C1	12°11'52"	300.00	96.27		C17	07°20'48"	300.00	2.50		C33	12°30'51"	230.00	34.81		C49	32°01'15"	15.00	13.62	
C2	10°24'50"	330.00	106.56		C18	07°20'48"	300.00	30.00		C34	12°30'51"	230.00	52.46		C50	07°20'28"	170.00	22.26	
C3	12°20'11"	330.00	92.83		C19	07°20'48"	230.00	30.00		C35	30°18'50"	230.00	79.80						
C4	12°20'11"	150.00	22.41		C20	12°30'51"	230.00	90.65		C36	30°18'50"	230.00	36.80						
C5	12°20'11"	150.00	21.82		C21	06°00'00"	230.00	16.97		C37	16°04'54"	230.00	64.11						
C6	07°22'54"	330.00	30.00		C22	16°04'54"	230.00	16.97		C38	16°04'54"	170.00	50.14						
C7	17°22'17"	300.00	50.27		C23	16°04'54"	230.00	41.16		C39	16°04'54"	170.00	22.20						
C8	04°07'26"	30.00	2.94		C24	16°04'54"	230.00	41.16		C40	31°00'25"	170.00	61.00						
C9	02°17'51"	30.00	2.70		C25	06°00'00"	30.00	40.23		C41	32°01'15"	15.00	13.62						
C10	27°02'58"	60.00	20.32		C26	06°00'00"	60.00	40.23		C42	31°00'25"	170.00	249.87						
C11	16°18'48"	60.00	141.82		C27	27°48'36"	60.00	23.00		C43	31°00'25"	30.00	23.44						
C12	00°04'20"	60.00	30.00		C28	00°44'18"	60.00	30.00		C44	06°42'54"	30.00	40.44						
C13	00°04'20"	60.00	30.00		C29	00°04'20"	60.00	30.00		C45	00°47'27"	30.00	40.20						
C14	00°04'20"	60.00	30.00		C30	70°30'18"	60.00	41.16		C46	00°40'30"	60.00	40.27						
C15	06°20'57"	30.00	24.75		C31	17°00'34"	230.00	66.82		C47	07°22'54"	60.00	50.80						
C16	11°40'32"	200.00	17.71		C32	20°20'44"	30.00	16.72		C48	30°18'50"	60.00	17.94						

INSTRUMENT OF DEDICATION

AND KNOW ALL MEN BY THESE PRESENTS: That Lumber One, Avon Inc., a Corporation under the laws of the State of Minnesota, owners of record, of the following described property, situated in the County of Olmsted, State of Minnesota, to-wit:

The east 1/2 of the SW 1/4 of Section 4, T100N-R13W, being south of Trunk Highway 14 described as follows: Beginning at the southeast corner of said SW 1/4; thence North 01 degree 14 minutes 40 seconds West along the east line of the SW 1/4 a distance of 1273.00 feet thence North 88 degree 20 minutes 02 seconds West to the west line of E 1/2 of SW 1/4; thence South 01 degree 23 minutes 15 seconds East, along the west line of said East Half of SW 1/4; to the south line of said SW 1/4; thence North 89 degree 11 minutes 07 seconds East along said South line, to the point of beginning, less and except ROLLING ROADS, according to the recorded plat thereof.

Have caused the same to be surveyed and plotted as ADDITION TO VALLEY SIDE ESTATES and do hereby donate and dedicate to the public for public use forever the thoroughfares and dedicate the easements, as shown on this plat for drainage and utility purposes only.

In witness whereof Lumber One, Avon, Inc., has caused these presents to be signed by its proper officer this _____ day of _____ 20____.

Ted R. Schmid, Chief Operating Officer

STATE OF MINNESOTA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____ 20____ by Ted R. Schmid, Chief Operating Officer of Lumber One, Avon, Inc., a corporation under the laws of the State of Minnesota.

Notary Public, _____ County, MN
My Commission Expires _____

CITY APPROVAL
STATE OF MINNESOTA
COUNTY OF OLMSTED
CITY OF ROCHESTER

I, _____, City Clerk, in and for the City of Rochester, do hereby certify that on the _____ day of _____ 20____ the accompanying plat was duly approved by the Common Council of the City of Rochester. In testimony whereof, I have hereunto signed my name and affixed the Seal of said City of Rochester this _____ day of _____ 20____.

City Clerk
City of Rochester

COUNTY SURVEYOR

I certify that this plat has been checked mathematically and that the plat conforms to applicable platting laws.

This _____ day of _____ 20____
Olmsted County Surveyor

SURVEYOR'S CERTIFICATE

I do hereby certify that I have surveyed and plotted the property described on this plat as ADDITION TO VALLEY SIDE ESTATES; that this plat is a correct representation of said survey; that all distances are correctly shown on said plat in feet and hundredths of a foot; that all monuments have been correctly placed in the ground as shown on this plat; that the outlets boundary lines are correctly designated; and that there are no waterfalls as defined in ME 508.02 Subd. 1, or public highways to be designated on said plat other than as shown.

Linda H. Brown
Minnesota L.S. No. 23682

STATE OF MINNESOTA
COUNTY OF _____

The foregoing Surveyor's Certificate was acknowledged before me this _____ day of _____ 20____ by Linda H. Brown, L.S. No. 23682

Notary Public, _____ County, MN
My Commission Expires _____

PROPERTY RECORDS AND LICENSING

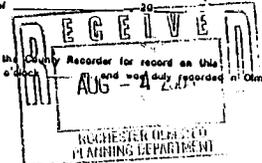
Taxes payable in the year 20____ on the land herein described have been paid, there are no delinquent taxes and transfer has been entered this _____ day of _____ 20____.

Document Number

I here by certify that this instrument was filed in the Office of the County Recorder for record on this _____ day of _____ 20____ at _____ o'clock _____ and was duly recorded at Olmsted County Records.

Director of Property Records & Licensing

Deputy



100
SCALE IN FEET

○ DENOTES IRON MONUMENT SET
● DENOTES IRON MONUMENT FOUND

ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 100 NORTH, RANGE 13 WEST, R. 65 EAST TO NEAR NORTH 80 DEGREES 50 MINUTES OR RECORD, EAST.

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN IN BLUE

BEING 10 FEET IN WIDTH UNLESS OTHERWISE INDICATED, AND ADJOINING STREET LINES AS SHOWN ON THE PLAN.

Surveyors & Engineering Professionals Inc.
100 Andover Blvd., Suite 104
Rochester, MN 55907
(507) 256-2666

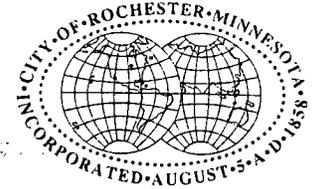
227

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ROCHESTER-OLMSTED PLANNING DEPARTMENT

2122 Campus Drive SE, Suite 100 • Rochester, MN 55904-4744



COUNTY OF

www.olmstedcounty.com/planning

Olmsted

TO: Rochester Common Council

FROM: Brent Svenby, Planner

DATE: August 13, 2003

RE: Final Plat #03-14 to be known as Valley Side Estates Third

Planning Department Review:

Applicant/Owner: Freedom Development & Consulting
PO Box 1643
St. Cloud, MN 56302

Surveyors/Engineers: Surveying & Engineering Professional Inc.
100 2nd Avenue South, Suite 104
Sauk Rapids, MN 56379

Referral Comments:

1. RPU Water Division
2. RPU Operations Division
3. Planning Department – Addressing
4. Planning Department - Wetlands
5. Rochester Public Works Department
6. Fire Department
7. Park and Recreation Department
8. Olmsted County Environmental Services

Report Attachments:

1. Referral Comments (5 Letters)
2. Location Map
3. Copy of Final Plat

Plat Data:

Location of Property: The property is located east of Valley Estate Second Subdivision and south of Highway 14 East.

Zoning: The property is currently zoned R-2 (Low Density Residential) District on the City of Rochester Zoning Map.

Proposed Development: The Plat proposes to subdivide approximately 33.41 acres of land into 42 lots for single family development and 4 Outlots.

Streets: The plat dedicates the right-of-way of a number of roadways ranging from a right-of-way dedication width of 50 to 60 feet and a pavement surface of 28' to 36'.

The proposed cul-de-sac islands will require

execution of a Maintenance Agreement prior to

BUILDING CODE 507/285-8345 • GIS/ADDRESSING/MAPPING 507/285-8232 • HOUSING/HRA 507/285-8224

PLANNING/ZONING 507/285-8232 • WELL/SEPTIC 507/285-8345

FAX 507/287-2275



AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

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recording the Final Plat. In addition, a Landscape Plan must be submitted by the Owner with the City-Owner Construction Plans, and approved by the City Engineer.

Sidewalks:

In accordance with current City policy, sidewalk is required along both sides of all of the new streets within the subdivision.

Drainage:

The City Public Works Department has approved the grading and drainage plan for this plat.

Wetlands:

The Soil Survey and National Wetland Indicator maps were reviewed for the presence of wetlands. The maps do not indicate the presence of wetlands on this property.

Public Utilities:

The public infrastructure plans have been approved by the City for this development.

Spillover Parking:

As per Section 63.426 of the LDM, all residential development must provide spillover parking for service vehicles and visitors. This development requires 50 spillover parking stalls. It appears as though the additional parking can be accommodated on the roadways and most likely within private driveways, as well.

Parkland Dedication:

The Rochester Park and Recreation Department recommends that parkland dedication requirements for this development be met via cash in lieu of land in the amount of \$15,300 with payment due prior to the recordation of the final plat.

General Development Plan:

The plat is consistent with the approved GDP for the property.

Preliminary Plat:

The Council approved a preliminary plat for this area on June 16, 2003. The approval of the preliminary plat was subject to seven (7) conditions: The conditions are listed below:

- 1. A Storm Water Management Fee will apply to any area of the development that does not drain to an on-site detention facility. Any on-site facilities serving less than 50 acres will be private and will require the execution of a Maintenance and Ownership Agreement.***
- 2. Construction of a temporary turn-around and associated temporary easement is required at the southerly extend of Falcon Place SE.***
- 3. Prior to recording the Final Plat, the applicant shall execute an Ownership & Maintenance Agreement, and dedicate applicable access and drainage easements for the proposed private stormwater detention facility shown on Outlot 'A'***

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4. *Parkland dedication shall be met via cash in lieu of land with payment due prior to the recordation of the final plat documents.*
5. *Development is limited to 1200 adt until a secondary access is provided.*
6. *The applicant shall execute a Maintenance Agreement, prior to recording the Final Plat, for islands located within the cul-de-sacs. In addition, a Landscape Plan must be submitted by the Owner with the City-Owner Construction Plans, and approved by the City Engineer.*
7. *No parking signs shall be posted on the roadways referenced in the letter dated May 5, 2003 from the Rochester Fire Department.*

Final Plat:

Planning Staff Recommendation:

The Planning Staff has reviewed the submitted final plat and would recommend approval subject to the following conditions:

1. *Prior to submitting the Final Plat for recording:*
 - a. *The roadway shall be labeled as Red Hawk Drive SE east of the intersection of Red Hawk Drive SE and Falcon Road SE and also west of the intersection of Red Hawk Drive SE and Falcon Road SE.*
 - b. *Illustrate Starling N LN SE and Starling Lane SE.*
2. *No Parking shall be allowed and "No Parking" signs shall be posted along one side of Starling Lane SE.*
3. *A GIS Impact Fee and E911 Addressing Fee shall be assessed and must be paid prior to recording the final plat, per the August 7, 2003 memorandum from Rochester-Olmsted Planning Department – GIS Division.*
4. *Parkland dedication shall be met via cash in lieu of land in the amount of \$15,300 with payment due prior to the recordation of the final plat documents.*
5. *The applicant shall execute a Maintenance Agreement, prior to recording the Final Plat, for islands located within the cul-de-sacs. In addition, a Landscape Plan must be submitted by the Owner with the City-Owner Construction Plans, and approved by the City Engineer.*
6. *Prior to recording the Final Plat, the applicant shall execute an Ownership & Maintenance Agreement, and dedicate applicable access and drainage easements for the proposed private stormwater detention facility shown on Outlot 'A'.*

ROCHESTER

— Minnesota —

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TO: Consolidated Planning Department
2122 Campus Drive SE
Rochester, MN 55904

DEPARTMENT OF PUBLIC
WORKS
201 4th Street SE Room 108
Rochester, MN 55904-3740
507-287-7800
FAX – 507-281-6216

FROM: Mark E. Baker

DATE: 8/13/03

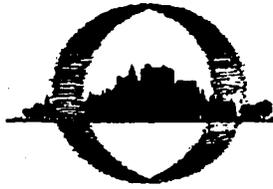
The Department of Public Works has reviewed the application for FP#03-14, for the proposed Valley Side Estates Third subdivision. The following are Public Works comments on the request:

1. A Development Agreement has been executed for this property.
2. A City-Owner Contract has been prepared for this project. Execution is required prior to construction of any public infrastructure to serve this subdivision.
3. Prior to recording the Final Plat, execution of an Ownership & Maintenance Agreement, and dedication of applicable access and drainage easements is required for the proposed private stormwater detention facility shown on Outlot 'A'.

Charges/fees applicable to the development of this property are addressed in the Development Agreement and City-Owner Contract, and include the following (rates were valid through 7/31/03).

- ❖ Water Availability Charge (WAC) @ \$1790.25 per developable acre.
- ❖ South East Trunkline Sewer (SAC) @ \$2512.80 per developable acre
- ❖ A Stormwater Management Fee @ \$2211.76 per acre, for any area of this property that does not drain toward a privately constructed on-site detention facility.
- ❖ Southeast Transportation Improvement District (SETID) @ \$3371.34 per gross acre
- ❖ First Seal Coat @ \$0.49 per square yard of public street surface.
- ❖ Traffic Signs as determined by the City Engineer.

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COUNTY OF
Olmsted



Rochester-Olmsted Planning Department
GIS/Addressing Division
2122 Campus Drive SE
Rochester, MN 55904-4744
Phone: (507) 285-8232
Fax: (507) 287-2275

PLAT REFERRAL RESPONSE

DATE: August 7, 2003

TO: Jennifer Garness

FROM: Randy Growden
GIS/Addressing Staff
Rochester-Olmsted County
Planning Department

CC: Pam Hameister, Wendy Von Wald, Surveying &
Engineering Professionals Inc.

RE: VALLEY SIDE ESTATES THIRD
FINAL PLAT #03-14

UPON REVIEW OF THIS PLAT THE FOLLOWING FEES ARE REQUIRED TO BE PAID BEFORE THE PLAT IS RECORDED. THIS APPLIES TO ALL PLATS RECORDED ON OR AFTER JUNE 1, 2003.

E911 ADDRESSING FEE: \$840.00 (42 LOTS/ADDRESSES)

GIS IMPACT FEE: \$430.00 (46 LOTS/OUTLOTS)

Notes: 1. Additional E911 Addressing fees may be required upon Site Plan review.
2. Final Plats must be legally recorded before request for address Applications are submitted to E911 Addressing Staff-Rochester/Olmsted County Planning Dept.

A review of the **final plat** has turned up the following **ADDRESS** or **ROADWAY** related issues:

1. No roadway designation illustrated east of intersection of Red Hawk Drive SE and Falcon Road SE.
RECOMMENDATION: Label roadway as **RED HAWK DRIVE SE.**
2. No roadway designation illustrated west of intersection of Red Hawk Drive SE and Falcon Road SE.
RECOMMENDATION: Label roadway as **RED HAWK DRIVE SE.**
3. **STARLING N LN SE** is illustrated incorrectly.
RECOMMENDATION: Illustrate roadway as **STARLING LANE SE.**



ROCHESTER PARK AND RECREATION DEPARTMENT
 201 FOURTH STREET SE
 ROCHESTER MINNESOTA 55904-3769
 TELE 507-281-6160
 FAX 507-281-6165

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MEMORANDUM

DATE: August 5, 2003
TO: Jennifer Garness
 Planning
RE: Valley Side Estates 3rd
 Final Plat #03-14

Acreage of plat.....	33.41 a
Number of dwelling units.....	42 units*
Density factor.....	.0244
Dedication	1.02 a
Fair market value of land.....	\$15,000 / a

- Does not include units planned for Outlots A.-D. To be determined with submittal of site plan for Outlots A.-D.

The Park and Recreation Department recommends that dedication requirements be met via: Cash in lieu of land in the amount of \$15,300 (1.02 a X \$15,000 / a) with payment due prior to recordation of final plat.

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The hand to reach for...
DAVID A. KAPLER
Fire Chief

DATE: August 5, 2003

TO: Jennifer Garness, Planning

FROM: R. Vance Swisher, Rochester Fire Department

SUBJ: Final Plat #03-14 to be known as Valley Side Estates Third by Freedom Development & Consulting LLC.

With regard to the above noted project plan, the fire department has the following requirements:

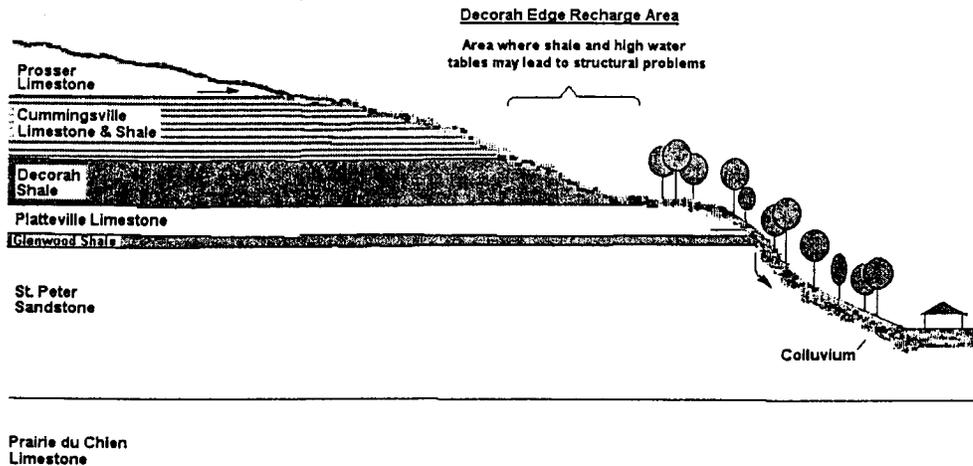
1. An adequate water supply shall be provided for fire protection including hydrants properly located and installed in accordance with the specifications of the Water Division. Hydrants shall be in place prior to commencing building construction.
 2. Streets and roadways shall be as provided in accordance with the fire code, RCO 31 and the Zoning Ordinance and Land Development Manual. Emergency vehicle access roadways shall be serviceable prior to and during building construction.
 - a) Streets less than 36 feet in width shall be posted "No Parking" on one side of the street. Streets less than 28 feet in width shall be posted "No Parking" on both sides of the street.
 - b) Cul-de-sacs less than 96 feet in diameter shall be posted "No Parking".
 3. All street, directional and fire lane signs must be in place prior to occupancy of any buildings.
 4. All buildings are required to display the proper street address number on the building front, which is plainly visible and legible from the street fronting the property. Number size must be a minimum 4" high on contrasting background when located on the building and 3" high if located on a rural mail box at the public road fronting the property. Reflective numbers are recommended.
- c: Donn Richardson, RPU, Water Division
Mark Baker, Rochester Public Works
Freedom Development & Consulting, LLC
Surveying & Engineering Professionals, Inc.

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Date: August 5, 2003
To: Jennifer Garness, Rochester-Olmsted Planning Department
From: Terry Lee, Olmsted County Environmental Services
Re: Final Plat #03-14 known as Valley Side Estates Third by Freedom Development & Consulting LLC in Marion Township, Section 4.

The Decorah Edge (see diagram below) is present within the area where the parcel is located. In this hydrogeologic setting, water discharges from the upper aquifer through soils overlying the Decorah shale before recharging the underlying aquifer. Developments in this setting have the potential to affect and be affected by these groundwater processes. Shrinking and swelling of the shale may cause structural problems and seasonal high water tables may result in wetness and flooding problems.

This finding is based on information derived from the Olmsted County Geological Atlas, construction logs from nearby wells, and bedrock mapping using two-foot contour intervals. The Decorah shale layer within this area is mapped at elevation of 1127' to 1154' and the Glenwood shale layer from 1100' to 1106' (see attached maps). More accurate bedrock elevations may be available from borings completed on or near the site.



An overview of the Decorah Edge recharge processes and the associated shale and flooding problems can be seen on the 15-minute video titled "Rochester's Groundwater Guardian". Copies of the video are available at the Rochester Public Library.

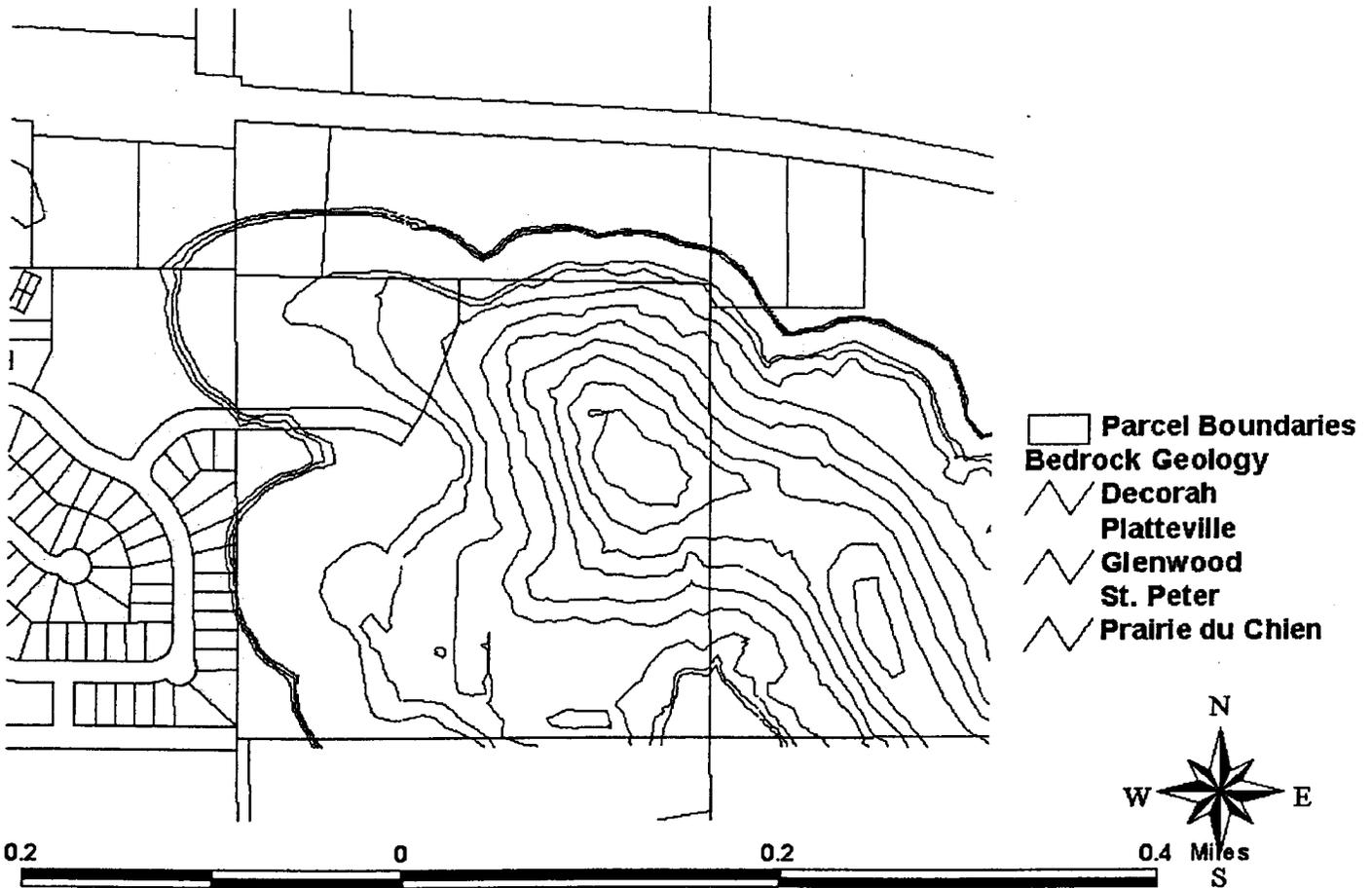
Enclosed is a Decorah Edge brochure that was prepared by our office.

For additional information contact:

Olmsted County Environmental Services
2116 Campus Drive SE
Rochester, MN 55905
(507) 285-8339
lee.terry@co.olmsted.mn.us

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Bedrock Geology in the Area of Valley Side Estates 3rd Subdivision



RECOMMENDED ACTIONS

There currently is no special recognition or protection of this unique woodland/wetland ecosystem. Without this, only minimal protection is afforded this ecosystem by state and federal wetland laws.

Individuals and communities have options for providing additional protection of these important areas. Most importantly, they can minimize activities such as farming, grading, home building, etc. that disturb the natural vegetation, soils, and bedrock along the Decorah Edge.

What can individuals do?

- Contact the County Environmental Services Department or the Minnesota Department of Natural Resources (DNR) to find out where the Decorah Edge lies in your area.
- Contact the County Soil and Water Conservation Districts to find out what programs are available for retiring cropland and for restoring and protecting wetlands.
- Contact the DNR for help in developing a vegetation management plan.
- Contact the Minnesota Land Trust for information about establishing permanent protection through the donation of conservation easements.

What can communities do?

Communities can adopt zoning regulations that guide development in these areas. They can also target these areas for park and open space acquisitions.

What else can be done?

This unique ecosystem should be recognized and protected in state and federal wetland laws. Contact the Minnesota Board of Water and Soil Resources for information on improving wetland laws.

FOR MORE INFORMATION

Olmsted County Environmental Services
2116 Campus Drive SE
Rochester, MN 55904
(507) 285-8339

Olmsted Soil & Water Conservation District
1485 Industrial Drive NW
Rochester, MN 55901
(507) 280-2850

SE Minnesota Water Resources Board
Winona State University
PO Box 5838 Winona, MN 55987
(507) 457-5223

Minnesota Board of Water and Soil Resources
40 16th Street SE, Suite A
Rochester, MN 55904
(507) 280-2873

Minnesota Dept. of Natural Resources
2300 Silver Creek Road NE
Rochester, MN 55906
(507) 285-7429

Minnesota Geological Survey
2642 University Avenue
St. Paul, MN 55114-1057
(612) 627-4780 ext. 222

US Geological Survey
2280 Woodale Drive
Mounds View, MN 55112-0049
(763) 783-3231

Rochester's Groundwater Guardian
is a 15-minute video on the
Decorah Edge available at the
Rochester Public Library.

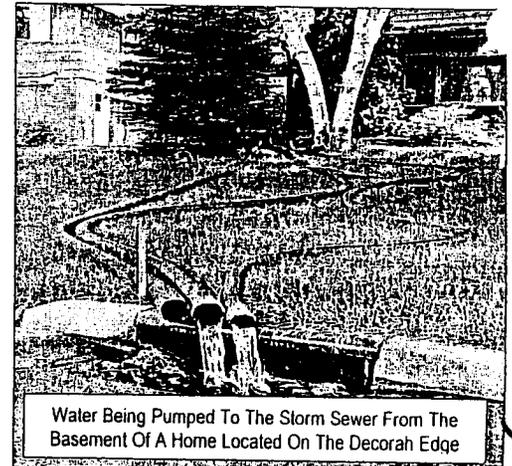
Pamphlet prepared by
Olmsted County Environmental Services

Protecting your asset:

THE DECORAH EDGE

Beneath the hills of southeastern Minnesota are subterranean "waterfalls" that go largely unnoticed. The slow flowing water that spills over the impermeable Decorah shale "edge" sustains a biologically diverse ecosystem that naturally filters the groundwater that supplies drinking water for the region's cities and farms.

These flowing waters are most evident during wet periods when seeps and springs discharge along hillsides. They can also be seen in excavations and in basements of homes located on the hillsides.



Water Being Pumped To The Storm Sewer From The Basement Of A Home Located On The Decorah Edge

337

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OUR BIOLOGICAL HERITAGE

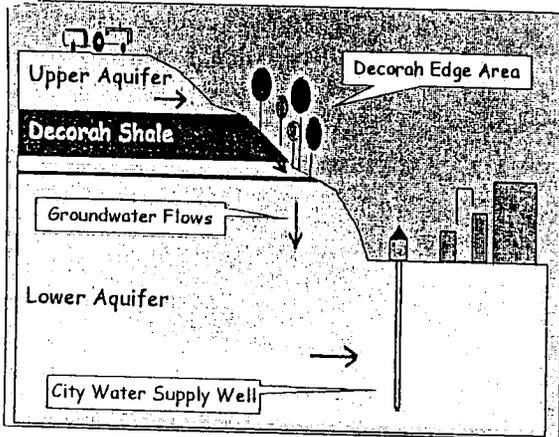
The wet slopes at the Decorah Edge provide a refuge for those woodland, wetland, and prairie species that have survived historic droughts, European settlement, and 150 years of intense land use.

Many parks in Southeastern Minnesota are located in this rich biological setting, and some of the most unique forest areas are included in the area designated as the Richard J. Dorer Memorial Hardwood Forest.

OUR DRINKING WATER

Water flowing over the Decorah Edge supplies clean fresh drinking water for 18 communities in southeastern Minnesota. These communities include Byron, Cannon Falls, Chatfield, Dennison, Dover, Faribault, Goodhue, Kenyon, Lanesboro, Mabel, Northfield, Pine Island, Preston, Rochester, St. Charles, Viola, Wanamingo, and Zumbrota.

Extensive studies in the Rochester area found that about half of the City's drinking water comes from flows over the Decorah Edge.



A VULNERABLE RESOURCE

Agriculture dominates much of the upland area that drains to the Decorah Edge. This upland area is a Karst landscape -- a landform of shallow soils, sinkholes, caves, and rapid subterranean drainage. Karst terrains are very susceptible to groundwater pollution: contaminants can enter the ground and move miles per day through cracks and crevices.

While the groundwater above the Decorah shale is often polluted with fertilizers, pesticides, manure and sewage, water immediately below the Decorah Edge generally has few of these pollutants.

NATURE'S FILTER

The Decorah Edge works as a natural filter removing pollutants from water as it flows through the soils and vegetation that overlie the shale bed. This filtration is a valuable economic asset for the region. Replacing this natural drinking water filtration in the Rochester area may cost as much as \$5 million per year.

In addition to removing pollutants from groundwater, filtration processes at the Decorah Edge also purify seep and spring water discharges that form the headwaters of the Cannon, Root, Whitewater, and Zumbro Rivers.

DEVELOPMENT PRESSURE

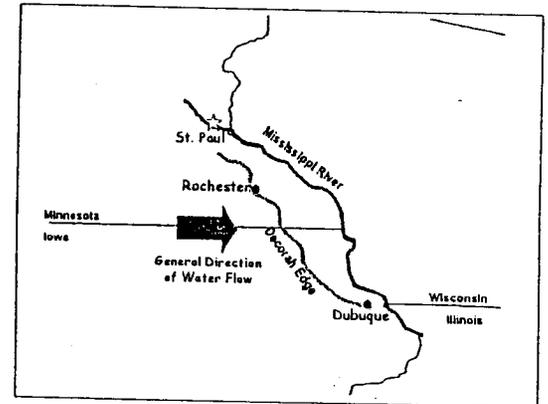
In urbanizing areas, the Decorah Edge is under increasing development pressure. Disturbance of groundwater flows and removal of vegetation associated with development may jeopardize the ability of this important natural resource to both supply groundwater and to purify it.

In the Rochester area, nearly all of the Decorah Edge is planned to be fully developed by 2045 under the current Land Use Plan. Development pressure also exists in smaller communities and rural areas. While the benefits of

these unique areas are well understood, the full impact of losing them is not.

DAMAGE TO STRUCTURES

Building on the Decorah Edge can be hazardous. High water tables can lead to wetness and flooding problems. Shrinking and swelling of the shale can cause structural damage. The cost of retrofitting household drainage and waterproofing in this setting ranges up to \$15,000. Damage to structures can be even greater. If intercepted water is diverted to city sanitary sewer, the annual cost to the city for treating this water can be as much as a \$1,000 per household.



EXTENT

In southeastern Minnesota, the Decorah Edge extends from Rice County through Goodhue, Dodge, Olmsted, Winona, Fillmore, and Houston Counties. It continues winding through northeastern Iowa through its namesake city and ends in Dubuque. Its total length is close to 200 miles and if stretched straight it would extend nearly 1,000 miles. There are also discontinuous areas of Decorah Edge found in the Twin Cities and in Southwestern Wisconsin.